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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,142	04/14/2004	Ben Fan	P-3641.279	6368

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EXAMINER

ALAVI, ALI

ART UNIT PAPER NUMBER

2875

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/824,142	FAN, BEN	
	Examiner	Art Unit	
	Ali Alavi	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1, 4, 6, 8, 10, 14, 16 and 18 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5, 7, 9, 11, 13, 15, 17 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to because:

a) Figure 11 should be marked as "Prior Art" since it is described in the brief description of drawing (s) as a conventional light string.

b) Figure 12 is marked as "Prior art" but it is described in the brief description as a schematic view of the present invention.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 12 is missing in the order of claims. Claims 13-19 have been renumbered as 12-18 respectively (rule 1.26).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Ko (US Pat. No 6,601,971).

Regarding claims 1, the applicant is advised that claims have been given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974), 1. Ko discloses a light string comprising: a core(20, fig. 2) made of a soft material (rope) and having multiple axial holes (21, 201, 331) defined in one side of the core, two connection wires (321) received in the other side of the core to be opposite to positions of the axial holes, multiple light (31) respectively received in the axial holes and connected to the two connection wires for electrical connection, a scattering body (41) formed on top of the core and on top of the lights for scattering light beams from the lights, a cladding enclosing (10) the scattering body and the core and having an arcuate

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top face for emission of light beams of the lights, a plug (322) connected to a same end of the two connection wires for providing electricity to the lights, and a stopper (not numbered, fig. 2) connected to the cladding and further connected to the connection wires at an end distal to the end of the plug.

2. The light string as claimed in claim 1, wherein an opaque layer is formed on the cladding to stop penetration of light beams of the LEDS so as to enhance the emission of light beams out of the arcuate top face of the cladding.

3. The light string as claimed in claim 2, wherein the opaque layer is a layer of black paint.

4. The light string as claimed in claim 1 further comprising a converter to change alternate current to direct current for the LEDS.

5. The light string as claimed in claim 3 further comprising a converter to change alternate current to direct current for the LEDS.

6. The light string as claimed in claim 1, wherein the scattering body is integrally formed with the cladding.

ly formed with the cladding.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1, 4, 6, 8, 10, 14, 16, 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (US Pat. No. 6,601,971).

Regarding claims 1, 4, 6, 8, 10, 14, 16, and 18 the applicant is advised that claims have been given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974), Ko discloses a light string comprising: a core(20, fig. 2) made of a soft material (rope) and having multiple axial holes (21, 201, 331) defined in one side of the core, two connection wires (321) received in the other side of the core to be opposite to positions of the axial holes, multiple light (31) respectively received in the axial holes and connected to the two connection wires for electrical connection, a scattering body (41) formed on top of the core and on top of the lights for scattering light beams from the lights, an integrally formed cladding enclosing (10) the scattering body and the core and having an arcuate top face for emission of light beams of the lights, a plug (322) connected to a same end of the two connection wires for providing electricity to the lights, and a stopper (not numbered, fig. 2) connected to the cladding and further connected to the connection wires at an end distal to the end of the plug. Ko discloses the invention as claimed except for the LEDs. The examiner takes Official Notice that the use of LEDs is old and well known in the illumination art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute an LED for the light source in the system of Ko. One would have been motivated since LEDs are recognized in the illumination art to have many desirable advantages, including reduced size, high efficiency, low power consumption, long life, resistance to vibrations, and low heat production, over other light sources.,

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As regards to converter (claim 4) it is well known in the art to provide a converter in the circuit to convert the AC current to DC current because LEDs are required a low voltage. As regards to claims 10,14,16, and 17 (transparent layer 41 meets this limitation.)

Allowable Subject Matter

Claim 2-3, 5, 7, 9, 11, 13, 15, 17, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fan Wong (US Pat. No 6,511,206), Hulse et al (US Pat. No 6,874,924), Lin (US Pat. No. 6,682,205), Liu (US Pat. No 6,582,094), Wang (US Pat. No 6,497,496), and Cleaver (US Pat. No 6,601,971) all are cited of interest.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Ali Alavi** whose telephone number is **(571) 272-2365**. The examiner can normally be reached between 7:00 A.M. to 5:30 P.M. Tuesday to Friday. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached at (571) 272-2378 or you may fax your inquiry to the **Central Fax at (703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ali Alavi
Patent Examiner
AU 2875